Weather II

Documentation Manual - Commodore 64 Version

ORBYTE™ SOFTWARE

The ChallengeWare Experience

The ChallengeWare educational series is designed to open new horizons in instructional techniques giving you an opportunity to increase learning comprehension in many areas. While enjoying the challenge of each program you explore new concepts, expand knowledge and practice basic skills. The primary emphasis is on content of the lesson and skills being learned. Both lively and colorful, these programs capture and hold your attention. Highly effective graphics serve as motivational techniques to supplement each educational objective.

Programs are largely self-explanatory. When used at home to reinforce familiar content and provide practice, little or no adult guidance is necessary; you need only to understand simple procedures in order to operate the program. When introduced to material for the first time some adult explanation may be needed in both subject information and program procedures, and further discussion may often be beneficial.

The ChallengeWare educational series includes programs in the following subject areas: Pre-school Concepts, Grammar, Reading, Math, Science, Social Studies, Economics, Foreign Languages, Computer Programming, and Logic & Strategy. By introducing quality programs appropriate for a variety of levels and ages, this series provides a significant challenge in learning as you continue to grow and strengthen in ability.

PROGRAM OBJECTIVE

Weather II is designed for students of upper elementary grades and older and provides an understanding of temperature and seasons through the program combination of Dew Drop and Four Seasons.

In Dew Drop, you must use the changing rate of the ground and dew point temperatures in order to calculate the height of clouds.

Four Seasons presents a scientific means of figuring the seasons around the world through graphics of the earth's location to the sun. In each program in Weather II your performance is evaluated and presented on screen.

EQUIPMENT NEEDED

Be sure you use the following equipment when operating this program:

*Commodore 64 keyboard
*Power Supply Box
*Commodore 1541 Disk Drive
*T.V. or Monitor

LOADING THE PROGRAM

In order to load this ChallengeWare program, follow the steps below:

1. Be sure your Commodore 64 equipment is installed correctly as explained in the Commodore User's Manual.

2. Turn the disk drive, monitor, and keyboard on. Be sure the keyboard is the last to be activated. If it is turned on before the other equipment, it may cause damage to the computer.

3. Upon turning on the power, the monitor screen should display the following:

****COMMODORE 64 BASIC V2****
64 K RAM SYSTEM 38911 BASIC BYTES FREE
READY.

If you do not see this screen displayed turn off the equipment and start over again.

4. Put the program disk into the disk drive and shut the drive door.

5. Type LOAD"*",8 then hit the RETURN key. The program will now be loaded into the computer's memory.

6. Upon the completion of the loading procedure, the word READY will be displayed on the monitor screen. At this time, type RUN and again hit the RETURN key.

7. The title frame of this program appears on your screen with the words WEATHER II written in color. To begin this program, press the space bar on your keyboard.

DEW DROP

To begin using the lesson on Dew Drop, press the 1 key when the MAIN MENU is displayed on screen. That lesson will then be loaded. Upon the loading completion, the title screen will appear with the prompt DO YOU WANT SOUND? If you do, press Y. If you do not, press N.

Next, the screen will give a brief summary of the lesson's objective. After reading it, press the space bar and a screen of special keys will appear. The ? key is used if you do not know the answer to an example and want it displayed on screen. The up arrow key (NOT THE CURSOR KEY!) is used if you want to leave the lesson before it is finished in order to return to the MAIN MENU.

This screen also asks if instructions are wanted. If so, press Y and a series of on-screen instructions will appear. If no instructions are desired, press N.

After reading the instructions or pressing N for no instructions, the lesson will begin. The screen will display three clouds and two temperatures. You must find the height of the clouds using the formula at the top of the screen. As a review of the instructions, the ground temperature (T) and the dew point temperature (D) drop as altitude is gained, but the temperatures drop at different rates. (For every 1000 feet of altitude, T drops 5.5 degrees farenheit and D drops 1.1 degree farenheit.) When the temperatures are equal, clouds form.

Therefore, to calculate the height at which the clouds form, we use the formula:

$$\text{Height} = T - D \;/\; 4.4 \times 1000$$

Using the formula and the T and D displayed on screen, you must calculate the height of the clouds, type in your answer and press the RETURN key. A screen character will then appear to inform you if your answer was correct or not, then the space bar should be pressed. If it was correct, the next example will appear and you must follow the same procedure again. If the answer was incorrect, the example will be repeated until the correct answer is given.

After seven examples are completed, the lesson will be over. Pressing the space bar after the last example will display your performance summary including the time it took to complete the examples, how many examples were completed, how many were guessed correctly in

the first try, and how many examples were answered incorrectly. After this summary has been reviewed, you can press the space bar and be given the option to repeat the lesson or return to the MAIN MENU.

FOUR SEASONS

To start the lesson of Four Seasons, press 2 when the MAIN MENU is displayed on screen. The program will then be loaded. After the loading is completed, the title screen will appear along with the prompt DO YOU WANT SOUND? If sound is desired, press Y. If no sound is desired, press N.

Next, the screen will display a short summary explaining the objective of Four Seasons. After this summary is read, press the space bar. The screen will now inform you that there are two special keys used in this lesson. The ? key can be pressed if you do not know the answer to an example and would like the answer displayed. The up arrow key (NOT THE CURSOR KEY!) is used if you want to leave the lesson before it is completed in order to return to the MAIN MENU.

Also in this screen, the prompt DO YOU WANT INSTRUCTIONS? appears. If you want instructions on the lesson, press Y. If not, press N.

At this time, the lesson will then begin. You will be shown the earth and its relation to the sun. The date will be given and you will be asked a question about the season as reflected in the screen illustration. Enter the correct answer by specifying either A, B, C, or D and pressing the RETURN key. If the answer was correct the sun will shine brightly. If the answer was incorrect, the screen will let you know. Then press the space bar to display the next example if your previous answer was correct or to repeat the same example if your previous answer was incorrect.

Continue answering questions to eight examples. After the eighth example is answered, a summary of performance will be displayed including the number of examples completed, the number of examples answered correctly in one try, the number of examples that were answered incorrectly on the first try and the number of times you pressed the ? key to be shown the answer. After the summary has been reviewed, press the space bar. You will now be given the option of repeating the lesson (by pressing 1) or returning to the MAIN MENU to select another lesson (by pressing 2).

Orbyte also carries a full line of business and productivity programs for the Commodore 64 as well as other programs in the ChallengeWare series. For a free catalogue or more information

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1-800-253-2600

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Box 948, Waterbury, CT 06720

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